3. The quality of the serum has been excellent, there having been very few complaints on this score. There have, however, been many complaints with regard to the insufficiency of supply. This, as already pointed out, has been due partly to dislocation of work at the end of the first three months, but more especially to the unexpectedly heavy incidence of Rinderpest during the last six months of the year. It is hoped to avoid a recurrence of this condition through building up a considerable reserve stock of serum; but this in a new institution takes time.

4. The question of a reserve stock of animals referred to in the report is an important one. More especially is this the case with animals for virus production, as these have to be drawn mainly from isolated Malnad areas from which animals can be obtained only with the greatest difficulty during the monsoon months (June, July and August). Proposals are at present before Government to use an isolated Forest Kaval about twenty miles from Bangalore as a reserve centre for these animals.

5. These measures should go far towards preventing a re-occurrence of serious serum shortage and should enable the Veterinary Department to deal with Rinderpest outbreaks before they get out of hand.

6. In conclusion, I wish to express my appreciation of the ability and industry shown by Dr. Parthasarathy and the staff working under him in what has been undoubtedly a very difficult task.

LESLIE C. COLEMAN,
Director.

ANNUAL REPORT OF THE MYSORE SERUM INSTITUTE FOR THE YEAR 1927-28.

The present Serum Institute was called Virus Depot at the beginning of the year and it was under the charge of Major Simpson, Superintendent, Mysore Civil Veterinary Department till 27th September 1927. The Virus Depot was made into a Serum Institute for the production of serum as an experimental measure, when both the virus and serum production work were placed under the Officer-in-charge, Serum Institute and Major Simpson handed over charge on 27th September 1927 for co-ordination in the production of both as per Government Order No. D. 2623-5—C. V. 95-25-35, dated 13th September 1927. The establishment in the Depot was one Veterinary Inspector, one Salustry and nine Cattlemen. The work of the Depot was to produce rinderpest virus and to supply to the Superintendent's Office. During this period 109 animals were used, 31,430 c. c. of virus produced and about 28,465 c. c. of virus supplied to the Civil Veterinary Department.

The period after 13th September to the end of June 1928 may be divided into two; the first was for three months as sanctioned in Government Order No. D. 2623-5—C. V. 95-25-35, dated 13th September 1927, which was extended till 11th January 1928 in Government Order No. D. 7121-23— C. V. 65-27-4, dated 9th January 1928, second period extended from 11th January 1928 to end of May 1928 as per Government Order No. D. 8771-3—C. V. 65-27-10, dated 24th February 1928. The first period was extended to the second as the experimental production of anti-rinderpest serum in the State was considered to be a success and to meet the increasing demand for serum from the Civil Veterinary Department.

The premises of the Institute were the out-houses of the Chief Commandant's office with its compound. The out-houses and the stables were modified and renovated to meet the requirements of the Institute; an additional cattle shed was constructed during the first period and at the end of the second period, three more stalls were constructed. A throwing shed and a watering trough were also put up. The total amount spent on buildings, repairs, etc., was Rs. 5,596.

Bacteriological requirements and vessels and bottles were bought from time to time at a total cost of Rs. 5,412-14-0. The Premier Metal Factory was kind enough to make all the vessels that were required for the Institute, as per instructions given to them. The amount spent on other requirements was Rs. 1,278. Chemicals and other drugs were obtained from Medical Stores as far as they could supply, the rest were bought locally.

The work of the Institute consisted of the production of virus and serum.

Office.—During the first period, it consisted of one clerk and two peons ; during the second period, one accountant, one chart clerk and two peons and two watchmen. For convenience of calculation, the establishment charges on account of the office section may be allocated in the ratio of 1 to 2 for virus and serum sections. The amount spent for office establishment during the two periods was Rs. 941-10-9.

Virus work..—The establishment that was working in the virus depot continued in this section during both the periods. There was no increase in the establishment and it consisted of one Veterinary Inspector, one Salustry and 9 Cattlemen till 2nd June 1928, when Mr. Achar who was first grade Veterinary Inspector, working in the virus section, was made Veterinary Assistant Superintendent. The establishment in the virus section was borne on the Civil Veterinary Department and paid out of the budget of the Civil Veterinary Department till 29th February 1928 when they were transferred to the Serum Institute.

During the first period and some time during the second period, calves were obtained from suppliers, when it was found that there was a large number of failures among the inoculated calves. The system was given up. One of the Veterinary Inspectors was detailed to buy calves from Malnad Districts and definite parts of the State and despatch to the Institute. When sufficient number of animals were not available by this method, some of the previous suppliers were requested to get the animals from definite selected localities, especially when the demand for virus from the Civil Veterinary Department was enormous.

The number of calves used during 1st July to 13th September 1927, *i.e.*, at the virus depot was 109, the number used during the first period was 286, the number used during the second period was 735, making up a total of 1,130. Three hundred and sixty-four died, a death rate of 32 per cent among the total number :—

Quantity of virus produced during 1st July to 13th September 1927 was	.. 31,430 c. c.
Quantity of virus produced during 14th September 1927 to 12th January 1928 was	.. 98,005 c. c.
Quantity of virus produced during the third period was	.. 3,32,845 c. c.
Total quantity of virus produced was	.. 4,62,280 c. c.
Quantity of virus supplied to the Mysore Civil Veterinary Department was	.. 4,31,080 c. c.
Quantity of virus supplied to the Madras Civil Veterinary Department was	.. 6,525 c. c.
Quantity of virus used in the Institute was ..	.. 11,425 c. c.
The remaining quantity of virus was spoilt and discarded on account of pyro and other causes.	

	Rs. a. p.
The cost of calves	.. 19,946 5 0
Establishment charges— (half of Officer's pay and one-third of Office establishment pay included)	.. 5,805 2 5
Feeding charges— (one-third of the whole cost is taken) ..	.. 3,084 0 5
Contingencies— (one half of the whole cost is taken) ..	.. 2,961 2 8
Gross cost on the whole	.. 31,796 10 6
Deduct receipts from .. the sale of 638 calves .. 3,276 12 0 and the sale of carcasses .. 858 0 0	
Total receipts	.. 4,134 12 0
Net cost	.. 27,661 14 6

The 4,62,280 c. c. of virus produced costed Rs. 27,661-14-6 working nearly, at one anna per c. c. of virus.

Serum work.—Serum work was started about the end of September 1927 when buffaloes were available for the work. During the first period, *i.e.*, from 13th September 1927 to 12th January 1928, the establishment consisted of two Veterinary Inspectors, two Salustries and ten Cattlemen and later six more Cattlemen were temporarily appointed as the work increased and the increase in the number of animals. During the second period, the establishment consisted of three Veterinary Inspectors, four Salustries and 17 Cattlemen and two thotties ; and six more Cattlemen were appointed from 21st April 1928 as per Director's letter No. Roc. 1576—25-26, dated 30th April 1928 and Government Order No. D. 12494-5—C. V. 65-27-17, dated 18th May 1928. Laboratory Section consisted of one Mediaman, one Laboratory Attendant and one Serum Room Attendant and Packing Section, one carpenter.

Animals were he-buffaloes purchased either by Veterinary Inspectors or supplied to the Institute by contractors. The number of animals used during the first period was 165, during the second period was 220, making up a total of 385. Of these, 20 died, 60 done buffaloes were returned and 305 were sold :—

Quantity of serum produced during 1st period was	..	1,80,000 doses
Do 2nd period was	..	3,45,260 doses
Total quantity produced	..	5,25,200 doses
Quantity of serum supplied to the Mysore Civil Veterinary Department was	..	5,14,260 doses
The remaining quantity of serum was made use of in the Institute for serum producing work and for treating the animals.		

		Rs. a. p.
The cost of he-buffaloes	..	11,894 4 0
Establishment charges— (Half of officer's pay and two-thirds of office establishment pay included)	..	6,417 12 6
Feeding charges— (two-thirds of the whole cost is taken) ..	..	6,168 0 10
Contingencies— (one half of the whole cost is taken) ..	..	2,961 2 8
Gross cost on the whole	..	27,441 4 0
Deduct receipts from .. the sale of 305 buffaloes .. 4,592 12 0 and the sale of carcasses 120 0 0		
Total receipts	..	4,712 12 0
Net cost	..	22,728 8 0

The 5,25,260 doses of rinderpest serum produced costed Rs. 22,728-12-0 working nearly, at Re. 0-0-9 per dose of serum. Using 5 doses as the average per animal, for inoculation, the cost per animal will be Re. 0-3-9.

During the course of the year, the work increased steadily so that difficulty was felt on account of the insufficiency of staff and insufficiency of space for laboratory, serum and office room accommodation, sheds, etc. Proposals were sent for an increased staff for the current year which was sanctioned by Government. As regards the difficulty of accommodation, the decision of Government is awaited as to the shifting to the Old Sawar Lines or to any other place, as the present building accommodation is too small for the present needs of the Institute. A place for keeping reserve animals for the Institute is also absolutely necessary as difficulty is felt not only in accommodating the animals but a fairly large number of animals cannot be kept handy so that they may be easily available when there is specially a heavy demand.

P. PARTHASARATHY,
Officer-in-charge, Serum Institute.